

Naval-Industry R&D Partnership Conference 2005

26 – 29 July 2005

**Ronald Reagan Building & International
Trade Center Washington, D.C.**



***Enabling Naval Innovations to
Win the Global War on Terrorism***

CONFERENCE AGENDA

July 26, 2005 (Day 1) Informational Sessions

- 0845-0900 **Welcome**
[Mr. Tom Kowalczyk](#), Consultant to Epsilon Systems Solutions, Inc.
- 0900-1130 **Alternative Futures Discussion – Technologies for a Navy/Marine Corps in Transition**
In this session the Joint Staff (J-5) will present the DoD strategy to win the Global War on Terrorism. This presentation, at the DoD level, will be followed by a presentation from the Navy addressing the Navy's 3/1 Construct. Both presentations set the stage for thinking about future operational scenarios and the enabling technologies needed in those future scenarios. The two presentations will be followed by a guided discussion led by the Naval War College. This discussion will address areas that could most help advance security in the future and the enabling technologies behind those areas.
Moderator: Mr. Tom Kowalczyk
[CAPT Thomas Mangold, USN](#), Head of the Strategic Concepts Branch, OPNAV N-5
[CDR Fred Winton Smith, Jr., USN](#), Strategic Planning Division, War on Terrorism Directorate, J-5
[Professor Bradd Hayes](#), Naval War College
[Professor David M. Trask](#), MASINT Chair, Department of Physics, Naval Postgraduate School
- 0900-1100 **Cultural Awareness/Know your Adversary**
This session focuses on conveying the USMC cultural lessons and insights emerging from OIF. It features a distinguished panel of experts who will discuss USMC operations in Iraq, the need for deeper cultural awareness of the indigenous environment, some of the social network analysis research supported by ONR, and other tools for cultural awareness.
Moderator: Dr. Montgomery McFate, Office of Naval Research
[Maj Ben Connable, USMC](#), Middle East Analyst, Intelligence Operations Estimates Branch & Middle East Desk Officer, Center for Advanced Operational Cultural Learning, HQMC
[Dr. Rebecca Goolsby](#), Office of Naval Research
[LtCol Tommy Scott, USMC](#), Operations Officer for the Center for Advanced Operational Culture Learning (CAOCL)
[Mr. Randy Gangle, USMC](#), Center for Emerging Threats and Opportunities
- 1100-1230 ***Lunch Networking Break (Lunch Not Provided)***
- 1230-1730 **Doing Business with the Navy**
This session provides industry with a comprehensive methodology for identifying partnership resources & program needs to support ONR's mission. Topics will include: Technology Transition and Acquisition Programs, Partnership Opportunities, Information Resources, Opportunities for Collaboration with the Naval Research Enterprise, and industry perspectives of "Doing Business with the Navy."
Moderator: Ms. Dottie Vincent, Office of Naval Research

[Mr. John R. Williams](#), Director, Navy SBIR Program, Office of Naval Research
[Mr. Ed Coyle](#), Director of Product Innovation Division, Office of Naval Research
[Mr. John U. Carney](#), Director, Navy Manufacturing Technology Program, Office of Naval Research
[Mr. Thomas E. McDonnell](#), Patent Counsel for the Navy, Office of Naval Research
[Mr. Dennis E. Padilla](#), Director, Contracts and Grants, Office of Naval Research
[Ms. Windy Joy Springs](#), Rapid Technology Transition Program Director, Office of Naval Research
[Ms. Genesta Belton](#), Director of Small Business, Office of Naval Research
[Mr. Anthony V. Junior](#), Director, Department of the Navy's (DON) Historically Black Colleges and Universities/Minority Institutions (HBCU/MI) Program Office
[Mr. Robert L. Barrett](#), Sr. Program Manager for DoD TechMatch, WVHTC Foundation
[Ms. Cynthia Gonsalves](#), DOD Technology Transfer Program Manager
[Ms. Wendy Hill](#), S & T Outreach Liaison, Defense Technology Information Center (DTIC)
[Mr. David Hyman](#), Program Manager, Independent Research & Development, Defense Technology Information Center (DTIC)
[Mr. Edward Linsenmeyer](#), Chair of Federal Laboratory Consortium and ORTA Manager, Naval Surface Warfare Center, Panama City
[Mr. James Rooney](#), Director IEE FirstLink, University of Pittsburgh
[Mr. Anthony C. Mulligan](#), Chief Executive Officer, Advanced Ceramics Research

July 27, 2005 (Day 2)

- 0645-0745 **Breakfast**
- 0700-1700 **Conference Registration**
- 0745-0800 **Call to Order/National Anthem/Conference Structure & Welcome**
National Anthem, [Mr. Trell Stanislaus](#), Office of Naval Research
Welcome, [RADM Jay M. Cohen, USN](#), Chief of Naval Research
- 0800-0845 **Speech: Winning the Global War on Terror - The Joint Warfighters Perspective**
[Maj. Gen. Jon A. Gallinetti, USMC](#), United States Joint Forces Command, Commander Joint Warfighting Center, Director Joint Training, J-7
- 0845-0930 **Speech: Naval Power 21**
[RADM Anthony W. Lengerich, USN](#), Vice Commander, Naval Sea Systems Command will present a top level update on Naval Power 21 and the Navy's role in support of joint operations.
- 0930-1015 **Speech: Challenges to National and International Security**
[Dr. John J. Hamre](#), President and CEO of the Center for Strategic and International Studies, will share his views on the new challenges to national and international security and look at some of the longer range implications of current policies and practices.
- 1015-1045 ***Networking Break (Coffee Service Provided)***
- 1045-1200 **Plenary Panel: ONR Investment Strategies Overview**
This panel of ONR Department Heads will provide a forum to address the overarching ONR Investment Strategies and the technologies needed to support those strategies.
Moderator: [CAPT John Kamp, USN](#), Assistant Chief of Naval Research
[CAPT Dave Schubert, USN](#), Commanding Officer, Naval Research Laboratory
[Mr. Michael B. Deitchman](#), Department Head, Naval Expeditionary Warfare Department, Office of Naval Research
[Mr. George Solhan](#), Division Head, Expeditionary Warfare Operations Division, Office of Naval Research
[Dr. Robert Pohanka](#), Department Head (Acting), Engineering, Materials and Physical Science Department, Office of Naval Research
[Dr. Bobby Junker](#), Department Head, Information, Electronics & Information Sciences Department, Office of Naval Research
[Dr. Hal Guard](#), Department Head, Human Systems Department, Office of Naval Research
[Dr. Frank L. Herr, Jr.](#), Department Head (Acting), Ocean, Atmosphere & Space Department, Office of Naval Research
- 1200-1330 **Luncheon Speaker: VADM John G. Morgan Jr., USN, Deputy Chief of Naval Operations for Information, Plans, and Strategy, N3/N5**
[VADM Morgan](#) will share his views on the future challenges facing Naval Research in the 21st Century relative to GWOT.

- 1330-1700 **Open Technology Partnership One-on-Ones:**
 One-on-One setting for government, defense contractors and businesses – INNOVATORS - to meet, exchange ideas and formulate solutions.
- Government to Business (G2B/B2G) Exchange
 - Business to Business (B2B) Exchange
- 1345-1500 **Breakout Sessions: Investment Strategies, Part 1**
 These two-part panel sessions allow for more in-depth discussion of technologies supporting the various functional areas under the ONR and Program Executive Office Investment Strategies in a classroom setting.
- Human Systems**
Moderator: Dr. Hal Guard, Department Head, Human Systems
 Department, Office of Naval Research
Dr. Jim Sheehy, Chief Technology Officer, Naval Air Systems Command, AIR 6.4T
LCDR Tim Coakley, USN, Emergency Medicine Attending Physician, Naval Medical Center Portsmouth
Mr. Paul Brewer, VP New Technology, ObjectVideo
- Ships and Seabasing**
Moderator: Dr. Robert Pohanka, Department Head (Acting),
 Engineering, Materials and Physical Science Department, Office of Naval Research
RDML (Sel) John (Jay) H. Bowling III, USN Deputy Director
 Expeditionary Warfare (OpNav N75B), Staff of the Chief of Naval Operations
RADM Charles S. Hamilton II, USN, Program Executive Office for Ships
Mr. Jonathan D. Kaskin, Director of Strategic Mobility and Combat Logistics Division (N42)
Dr. John Pazik, Physical Sciences S&T Division, Engineering, Materials & Physical Science Department, Office of Naval Research
- Persistent Surveillance**
Moderator: Dr. Bobby Junker, Department Head, Information, Electronics & Information Sciences Department
Mr. Martin Kruger, Office of Naval Research Code 353 Land Persistent Surveillance
Dr. Wayne Perras, Technical Director, Navy Warfare Development Command
Dr. Alexander Stoyen, Founder and Chief Executive Officer, 21st Century Systems, Inc. Actual Persistent Surveillance systems in OIF
- 1500-1530 ***Networking Break (Light Refreshments Provided)***

1530-1630

Breakout Sessions: Investment Strategies, Part 2

These two-part panel sessions allow for more in-depth discussion of technologies supporting the various functional areas under the ONR and Program Executive Office Investment Strategies in a classroom setting.

Expeditionary Warfare/Counterterrorism

Moderator: [Mr. George Solhan](#), Division Head, Expeditionary Warfare Operations, Office of Naval Research

[Mr. Ashley Johnson](#), Deputy Manager, FNC Technology Transition, Office of Naval Research

[Mr. Jeff Bradel](#), EC & Thrust Maneuver Manager, Office of Naval Research

[Mr. Martin Kruger](#), ISR EC Manager, Office of Naval Research

[Mr. John Moniz](#), C4 EC Manager & C4ISR Thrust Manager, Office of Naval Research

[CDR Dylan Schmorrow, USN](#), HPT&E Thrust Manager, Office of Naval Research

[Maj Billy Short, USMC](#), MCM Thrust Manager, Office of Naval Research

[Maj Alan Stocks, USMC](#), Logistics Thrust Manager, Office of Naval Research

[Ms. Vickie Williams](#), EC Manager – Fires, Office of Naval Research

Air Platforms & Weapons

Moderator: [Mr. Michael B. Deitchman](#), Department Head, Naval Expeditionary Warfare Department, Office of Naval Research

[Lt.Gen. Mike Hough, USMC](#), Deputy Commandant for Aviation, HQMC

[Mr. Mike Walsh](#), Staff Specialist for Land Warfare and Munitions Aviation Programs, Office of the Secretary of Defense

[Dr. Michael Richman](#), Associate Director, Aerospace Technology, Office of the Secretary of Defense

[Mr. David K. \(Keith\) Sanders](#), Deputy Program Executive Officer for Strike Weapons

[Mr. Gerald Walles](#), PEO (T) F-18 Advanced Development Group, S&T Lead

Ocean, Atmosphere and Space

Moderator: [Dr. Frank L. Herr, Jr.](#), Department Head (Acting), Ocean, Atmosphere & Space Department, Office of Naval Research

[Dr. Doug Todoroff](#), Director (acting) Code 321, Sensing and Systems and OMCM FNC Program Manager

[Dr. Mel Briscoe](#), Director Code 322, Processes and Prediction

[Dr. Bob McCoy](#), Code 321SP

[Dr. Dave Johnson](#), Code 32ASW, LASW FNC Program Manager

1700

Networking Reception

July 28, 2005 (Day 3)

0645-0745 **Breakfast**

0800-0815 **Welcome**

[RADM Jay M. Cohen, USN](#), Chief of Naval Research

0815-0900 **Speech: Marine Corps Priorities**

[Lt. Gen. Robert Magnus, USMC](#), Deputy Commandant for Programs and Resources, will discuss his top priorities.

0900-1000 **Plenary Panel: Confronting the GWOT, ONR's Basic Research Initiative to Combat IEDs**

This panel will examine various approaches to fighting the GWOT.

Moderator: [Dr. Starnes Walker](#), Chief Scientist, Office of Naval Research

[Mr. Ben Riley](#), Chairman, Combating Terrorism Technology Task Force

[Mr. Steven Burmeister](#), Director, Terrorist Explosives Device Analytical Center, Federal Bureau of Investigation Laboratory

[Dr. Edward G. Liszka](#), Director, Applied Research Laboratory, Pennsylvania State University

[Dr. John Montgomery](#), Director of Research, Naval Research Laboratory

1000-1030 ***Networking Break (Coffee Service Provided)***

1030-1145 **Plenary Panel: Marine Corps Counter-IED Initiatives**

This panel will sensitize government and industry attendees to USMC Counter-IED technology requirements in order to make contacts and discuss technology requirements and methodologies for technology selection. Panel members will incorporate current initiatives in concepts, requirements, and operations.

Moderator: [Dr. Paul Muessig](#), Office of Naval Research, Naval Counter-IED S&T Initiatives

[Col Eric Litaker, USMC](#), Marine Corps Warfighting Laboratory, Operational Experience with IEDs

[Maj Bruce Paterson, USMC](#), Marine Corps Warfighting Laboratory, Director, IED Working Group

[Maj Billy Short, USMC](#), Office of Naval Research, Mine Countermeasures Thrust Manager

[Mr. Jean Malone](#), EDO/ Marine Corps Warfighting Laboratory, Recent Technology Deployments and Remaining Challenge

[Mr. Joseph Murgo](#), Program Manager, Counter-IED Program, MCSC; Procurement Status and Plans

1200-1330 **Luncheon Speaker: The Honorable John H. Marburger, III, Director, Office of Science and Technology Policy, Executive Office of the President**

[Dr. John Marburger](#), Director, Office of Science and Technology Policy, Science Advisor to the President, will provide a framework for the necessary scientific solutions crucial to winning the global war on terrorism. Dr. Marburger will also discuss recent initiatives to achieve those solutions.

1330-1700 **Open Technology Partnership One-on-Ones**

One on One setting for government, defense contractors and businesses – INNOVATORS - to meet, exchange ideas and formulate solutions.

- Government to Business (G2B/B2G) Exchange
- Business to Business (B2B) Exchange

1330-1400 **Speech: Mr. Evan I Schwartz, *JUICE: The Creative Fuel That Drives World-Class Inventors***

[Mr. Evan I. Schwartz](#), Chief Storyteller at Walker Digital Laboratories and Author of *JUICE: The Creative Fuel That Drives World Class Inventors*, will discuss his latest research on what drives the inventive spirit and offers his strategies to facilitate the transformation of ideas into reality.

1400-1500 **Plenary Panel: Innovation at the Edge: The New Capabilities, Applications, Threats and Opportunities Unleashed by Global Technology Convergence and Proliferation**

Many of the greatest innovations in the history of science have occurred on the edges of technology areas, where previously separate disciplines came together to enable powerful new functionality and applications. Recent advances in communication, computing and information sharing are driving this process forward at unprecedented speed and allowing the rapid proliferation of new technology and biotech clusters around the globe, expanding R&D and innovation from a U.S.-only game to a distributed global endeavor. This distinguished panel of experts will explore global technology convergence, the significance of these rapidly converging technology areas, the way these technologies can be exploited by enemy forces from small, decentralized terrorist networks to rogue nations, and how these technologies can be utilized to better defend our country.

Moderator: [Mr. Etan J. Ayalon](#), Managing Director, GlobalTech Research, LLC

[Mr. Cory Ondrejka](#), VP of Product Development, Linden Labs; Virtual Reality and Social Networks

[Dr. Randy Rettberg](#), Director of the BioBrick Catalog at MIT; Synthetic Biology

[Dr. Neil Gershenfeld](#), Director, Center for Bits and Atoms at MIT; Digitization of Fabrication and Distributed, Collaborative Manufacturing

1500-1530 **Networking Break (Light Refreshments Provided)**

1530-1630 **Plenary Panel: Shoulder-to-Shoulder – The Commercial Sector's Contribution to Winning the Global War on Terrorism**

This Panel will discuss approaches to further engage industry in winning the Global War on Terror. Both US based and International based initiatives will be presented.

Moderator: [Dr. James DeCorpo](#), Chief Scientist, Office of Naval Research Global

[Dr. Jeffrey Helms](#), Manager, Materials Research and Advanced Engineering, Ford Motor Company

[Mr. Andrew Dearing](#), Secretary General, European Industrial Research Management Association (EIRMA)

[Dr. Joseph Raksis](#), Chairman and CEO of Precisia, LLC; Past Chairman, Industrial Research Institute

1630-1730

Informational Session: Dr. Douglas Todoroff, Office of Naval Research

This session will provide potential offerors the opportunity to ask questions regarding submission of white papers in response to the Counter IED Basic Research Broad Area Announcement. A description of the BAA will be provided and the Technical POC and the POC for Grants will be field questions regarding the BAA.

July 29, 2005 (Day 4 – Overview of FNC New Starts / Business Opportunity Development)

- 0730–0800 **Welcome: Introduction to ONR's Future Naval Capabilities Program and Business Opportunities**
[Dr. Joseph P. Lawrence III](#), Associate Technical Director-Transition (acting), Office of Naval Research, will provide welcoming remarks and follow with a comprehensive overview of the Future Naval Capabilities (FNC) program. His discussion will be divided into two main areas. Dr. Lawrence will start by discussing the process and structure of the FNC program. He will discuss how the FNCs are governed, including the technical management and the oversight role of the Naval 3-star Technology Oversight Group (TOG). He will then describe the business opportunity sessions that follow and how industry can become involved in the FNC programs in FY06 and beyond.
- 0800-0900 **Speech: Mr. Dean Kamen, President, DEKA Research and Development Corporation**
[Mr. Dean Kamen](#), President, DEKA Research and Development Corporation, will provide a framework for achieving innovative solutions for advanced technologies to enhance the quality of life around the globe, with an emphasis on using micro technology and Stirling engine applications to change society.
- 0900-0915 ***Networking Break***
- 0915-1100 **Business Opportunities: Sea Shield FNC**
[Dr. Dave Johnson](#), Office of Naval Research, **Rapid, Covert Surveillance System Deployment and LWT Improvement**—New sensor systems and autonomous processing/control of off-board ASW sensors and weapons
- Cross Field Processing and Smart Use of Distributed Systems and Localization and Attack from UAVs**—Autonomously detect, classify, localize and remotely engage threat subs via an active distributed sensor field
- [Dr. Doug Todoroff](#), Office of Naval Research, **MCM for Maneuver Spiral 2**—Detection of buried anti-invasion minefields in the Surf Zone (SZ) and Beach Zone (BZ) and neutralization of buried mines in the Very Shallow Water (VSW) and Surf/Beach Zone (SZ/BZ)
- MCM Capacity Spiral 2**—Reduction of MCM timelines for detecting, classifying, identifying and clearing moored and bottom mines in shallow and deep water by focusing on the development of cooperating, unmanned systems technology
- [CAPT Lee Bond, USN](#), Office of Naval Research, **Sea Based Missile Defense of Ships and Littoral Installations**—Improve coordinated engagement against advanced missile threats to ships and littoral installations

[Dr. Preston Grounds](#), Office of Naval Research, **Defense of Harbor and Near-Shore Naval Infrastructure Against Asymmetric Threats**

1100-1200 **Business Opportunities: FORCEnet FNC**

[Mr. Adrian Eley](#), Office of Naval Research, **Technology Issues in FORCEnet**

[Mr. Martin Kruger](#), Office of Naval Research, **Automated Control of Large Sensor Network**—Tactical, netted and interoperable, multi-INT sensor system for indications and warning

[Dr. Gary Toth](#), Office of Naval Research, **Combat ID in the Maritime Domain to Reveal Contact Intent**—Improved CID, automated situational awareness and understanding of hostile target intent

1200-1230 ***(Networking Break)***

1230-1330 **Business Opportunities: Sea Strike FNC**

[Dr. Peter Morrison](#), Office of Naval Research: **Discriminate and Provide Terminal Guidance for Weapons Targeted at Moving Targets**

[Mr. Ashley Johnson](#), Office of Naval Research: **Transparent Urban Structures & FNC: Modular Scalable Effects Weapon**—Sensors and tools for classifying activities within man-made structures

Battlefield Power— Advanced battlefield power generation technologies to reduce the logistic footprint and keep pace with increasing power demands

Modular Scalable Effects Weapon—Variable blast and fragmentation effects for indirect fire systems (Expeditionary Fire Support System)

1330-1415 **Business Opportunities: Sea Warrior FNC**

[CDR Russell Shilling & Dr. Michael Given](#), Office of Naval Research, **Force Health Protection Future Capabilities**—ONR's Medical and Biological S&T Division will discuss the Force Health Protection Future Capabilities program, which provides the naval warfighter with Casualty Care and Management, Casualty Prevention, and Healthy and Fit Force capabilities.

[Dr. Wallace Wulfeck](#), Office of Naval Research, **Capable Manpower**— Provide science and technology for manpower, personnel training and human systems integration (HSI)

1415-1430 ***(Networking Break)***

1430-1530 **Business Opportunities: Sea Basing & Enterprise and Platform Enablers FNC**

[Dr. John Pazik](#), Office of Naval Research, **Sea Base Mobility and Interfaces**—Enables rapid force employment, sustainment, and reconstitution via assault surface and air connectors in Sea State 4 conditions

Maritime Prepositioning Force Future (MPF(F)) MEB Force Closure—Provides rapid force closure of equipment, materials, and personnel to the Sea Base via High Speed Connectors

Surface Connector Vehicle Transfer—Enables rapid force employment, sustainment, and reconstitution through the safe, time efficient transfer of vehicles, personnel, and mobile loaded materials between the Sea Base and the connectors through Sea State 4

[TBD](#), Office of Naval Research, **Total Ship Survivability, Damage Tolerance, and Recoverability**—Improve ship survivability by mitigating the damaging effects of conventional weapon hits